

REMARKS

In accordance with the foregoing, claim 16 is amended without narrowing the claims within the meaning of *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 56 USPQ2d 1865 (Fed. Cir. 2000). No new matter is presented in any of the foregoing and, accordingly, approval and entry of the amended claim are respectfully requested.

Claims 1-16 are pending and under consideration. Reconsideration is requested

ENTRY OF AMENDMENT UNDER 37 CFR §1.116

Applicants requests entry of this Rule 116 Response because it is believed that the amendment of claim 16 puts this application into condition for allowance and should not entail any further search by the Examiner since no new features are being added or no new issues are being raised. Claim 16 is amended to correct a typographical error and change the phrase "an noise" to --a noise--.

COMMENT ON ITEM 3.1 CONTENTIONS

In item 3.1 of the current Action, the Examiner contends that the arguments in the Amendment filed June 27, 2005 (previous Amendment) in response to the previous Action mailed February 25, 2005 did not comply with 37 CFR 1.111 (b) by not specifically pointing out how the language of the claims patentably distinguishes them from the references to the case.

Applicants respectfully submit that the Examiner's contention is incorrect. The arguments in the previous Amendment pointed out that the cited art did not teach, for example, "an improvement proposal making the analyzing circuit closer to one of basic types of the transmission circuit topologies." Rather, as Applicants pointed out, for example, the cited art, i.e., Tsuchida merely teaches "adding a noise reduction component (noise countermeasures) to the circuit design data." (See, previous Amendment at page 9).

ITEM 4: REJECTION OF CLAIMS 1-16 UNDER 35 U.S.C. §102(b) AS BEING ANTICIPATED BY PETSCHAUER ET AL. (U.S.P. 5,596,506)

The Examiner rejects claims 1-16 under 35 U.S.C. §102(b) as being anticipated by newly-cited art Petschauer. The rejections are traversed.

Applicants submit that features recited by each of the independent claims are not taught by Petschauer.

Independent claims 1, 5 and 11 respectively recite a method, an apparatus, and a computer-readable storage medium which stores a program, using claim 1 as an example, including "(a) obtaining an analyzing circuit judgement result by judging acceptability of the analyzing circuit based on a comparison of features of the analyzing circuit and the transmission

circuit topologies, and (b) outputting an improvement proposal making the analyzing circuit closer to one of basic types of the transmission circuit topologies depending on the analyzing circuit judgement result (emphasis added)."

Independent claim 16 recites a method for determining a noise countermeasure including "categorizing an analyzing circuit into a plurality of transmission circuit wiring topologies, wherein a transmission waveform of the analyzing circuit differs depending on each of the topologies; comparing the topologies; and outputting a noise countermeasure improvement proposal based on the comparison."

That is, according to aspects of the present invention, a noise countermeasure is determined with respect to a circuit that is to be analyzed and is categorizable into a plurality of transmission circuit topologies depending on manners in which wirings are connected, where a transmission waveform of the analyzing circuit differs depending on each of the transmission circuit topologies.

On the other hand, Petschauer merely proposes an IC chip fabrication method for obtaining a crosstalk voltage value that is lower than a noise margin, using a calculation formula. Petschauer teaches simply creating a trial layout from a circuit that is input, and estimates (or calculates) the crosstalk voltage based on the trial layout. Petschauer does not obtain an analyzing circuit judgement result "by judging acceptability of the analyzing circuit based on a comparison of features of the analyzing circuit and the transmission circuit topologies," as recited by claim 1, for example

Further, Petschauer teaches simply estimating (or calculating) the crosstalk voltage by changing parameters within a predetermined range, such as "shortening the segment," "changing the driver circuit," and "adding a capacitor" based on the calculation formula, so as to obtain the parameters satisfying the noise margin.

Petschauer does not output an improvement proposal by "making the analyzing circuit closer to one of basic types of the transmission circuit topologies depending on the analyzing circuit judgement result," as recited by claim 1, for example.

Since the area of the IC chip is small and the distance between the adjacent nets is short, crosstalk is a large problem. On the other hand, since the wiring length of the IC chip is generally short, there is not a large difference in waveform qualities among the different transmission circuit topologies such as "load concentration type," "star type," and "daisy chain type," wiring topologies.

However, in a case of a printed circuit board (PCB), for example, the wiring length is long

compared to that of the IC chip, and the waveform qualities greatly differ depending on the transmission circuit topology. In addition, the ideal wiring characteristics (such as wiring impedances) and the characteristics of the noise countermeasure parts (such as damping resistances) differ depending on the selected transmission circuit topology.

Thus, unlike Petschauer that is limited to the IC chip, the present invention (a) obtains an analyzing circuit judgement result by judging acceptability of the analyzing circuit based on a comparison of features of the analyzing circuit and the transmission circuit topologies and (b) outputs an improvement proposal making the analyzing circuit closer to one of basic types of the transmission circuit topologies depending on the analyzing circuit judgement result, so as to determine the noise countermeasure even with respect to the analyzing circuit such as the PCB, at an early stage of the design process.

Petschauer does not teach or suggest these features and effects of the present invention.

Further, Petschauer does not teach such an outputting a "noise countermeasure improvement proposal based on the comparison (emphasis added)."

The Examiner incorrectly contends that Petschauer teaching regarding NET1, NET2, NET3, NET4, i.e., a "victim net" and three "aggressor nets," teach features recited by the claims. (Action pages 3-4).

However, Petschauer instead merely teaches outputting tables such as FIGs. 30A and 30B (see, for example, col. 2, lines 15-20) that "identifie(s) the victim net which exceed the available noise margin."

That is, the computer printouts taught by Petschauer provide comparison data only and there is no outputting of a "proposal" let alone, as recited in claims 1, 5 and 11 an outputting an improvement proposal "making the analyzing circuit closer to one of basic types (emphasis added)."

Further, Applicants submit that dependent claims recite features not taught by the cited art. For example, dependent claim 2 recites "selecting and outputting an improvement proposal by referring to an improvement proposal file which indicates improvement proposals depending on the error causes, using the error cause analyzed by said analyzing an error cause."

Petschauer does not teach any such selecting and outputting an improvement proposal. Rather, Petschauer merely teaches (see, col. 23) a table with data that "estimates the crosstalk voltages which are coupled into a victim net."

As another example, claim 3 recites "selecting and outputting . . . by referring to an improvement proposal file which indicates improvement proposals depending on the error causes."

Petschauer does not teach any such selecting and outputting that has referred to an improvement proposal file. Rather, Petschauer merely teaches (see, for example, col. 24) that data output in FIGS 30A and 30B is generated for each victim net and its corresponding aggressor net where noise margin is exceeded.

Summary

Since features recited by claims 1-16 are not taught by the cited art, the rejection should be withdrawn and claims 1-16 allowed.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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